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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF APPEALS**

In re Patent Application of: )  
FRISCO ET AL. )  
Serial No. 09/545,267 ) Examiner: M. HOYE  
Confirmation No. 1947 ) Art Unit: 2614  
Filing Date: APRIL 7, 2000 )  
For: AIRCRAFT IN-FLIGHT ENTERTAIN- )  
MENT SYSTEM WITH SOFT FAIL AND )  
FLIGHT INFORMATION FEATURES )  
AND ASSOCIATED METHODS )

**APPELLANT'S APPEAL BRIEF**

MS Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith is Appellant's Appeal Brief together with the requisite \$500.00 large entity fee for filing a brief. If any additional extension and/or fee is required, authorization is given to charge Deposit Account No. 01-0484.

**(1) Real Party in Interest**

The real party in interest for the present application is the assignee, LiveTV, Inc.

**(2) Related Appeals and Interferences**

At present there are no related appeals or interferences.

**(3) Status of the Claims**

Claims 32-33, 35-36, 39-42, 45 and 47 are pending in the application, all of which are being appealed herein.



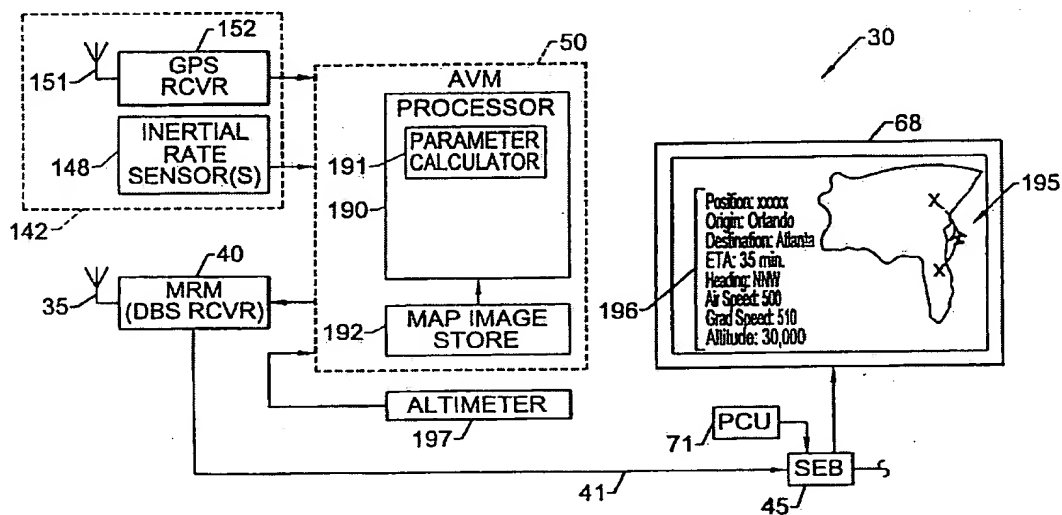
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**(4) Status of the Amendments**

All amendments have been entered and there are no further pending amendments. A copy of the claims involved in this appeal is attached hereto as Appendix A.

**(5) Summary of the Claimed Subject Matter**

By way of example, the invention is directed to an aircraft in-flight entertainment system in which a respective passenger control unit is associated with each passenger seatback display for permitting passenger selection of one of the satellite TV programming channels and a flight information channel. The aircraft in-flight entertainment system is discussed on page 29, line 6 through page 31, line 20 in the application, and is illustrated in FIG. 14 of the application, which is reproduced below for convenience of reference.



**FIG. 14 of the Present Application.**

The aircraft in-flight entertainment system 30 determines or receives the aircraft position during flight and generates a moving map image 195 of the aircraft as a flight

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information video channel. A processor **190** illustratively includes a parameter calculator **191** for calculating various flight parameters **196** for display. The various flight parameters **196** are also displayed along with the moving map image **195**. This flight information channel is offered along with the satellite TV programming channels during aircraft flight.

In the illustrated embodiment, the passenger may select the flight information channel to be displayed on the passenger video display **68** using the passenger control unit (PCU) **71** which is typically mounted in the armrest as described above. In other words, the flight information channel is integrated along with the entertainment programming channels from the satellite television receiving system **40**.

Independent Claims 32 and 41 are presently on appeal. Independent Claim 32 is directed to an aircraft in-flight entertainment system **30** comprising a satellite television (TV) receiver **40** for generating a plurality of programming channels, and a moving map image generator **50** for generating a flight information channel including a moving representation of the aircraft position on a map image **195**. The moving map image generator **50** comprises a processor **190** for determining an aircraft position during flight, aircraft direction, aircraft speed, and aircraft altitude for display with the moving map image **195**.

The aircraft in-flight entertainment system **30** also comprises a plurality of passenger seatback displays **68** connected to the satellite TV receiver **40** and the moving map image generator **50**. A respective passenger control unit **71** is associated with each passenger seatback display **68** for permitting passenger selection of one of the programming channels and flight information channel for display thereon.

The present invention advantageously allows a

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passenger to select a programming channel from the satellite TV receiver or the flight information channel, wherein the flight information channel provides aircraft position during flight, aircraft direction, aircraft speed, and aircraft altitude for display with the moving map image.

Independent method Claim 41 is similar to independent device Claim 32 by reciting that a flight information channel including a moving representation of the aircraft position on a map image is generated for passenger selection, and the generating comprises determining an aircraft position during flight, aircraft direction, aircraft speed and aircraft altitude for display with the moving map image.

#### **(6) Grounds of Rejection to be Reviewed On Appeal**

Claims 32-33, 35-36, 39-42, 45 and 47 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sklar et al. (U.S. Patent No. 5,990,928) in view of Galipeau et al. (U.S. Patent No. 6,249,913) and in further view of Wakai et al. (U.S. Patent No. 5,973,722).

#### **(7) Argument**

##### **I. The Claims Are Patentable**

In FIGS. 1 and 2 of Sklar et al., an in-flight entertainment (IFE) system comprises a satellite TV receiver 40, 42 and a plurality of passenger seatback displays 56 connected to the satellite TV receiver. A respective passenger control unit is associated with each passenger seatback display for permitting passenger selection of a programming channel (column 9, lines 26-52). As correctly noted by the Examiner, Sklar et al. fails to disclose a moving map image generator for generating a flight information channel including a moving representation of the aircraft position on a map image.

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The Examiner cited Galipeau et al. as disclosing at column 11, lines 25-30, that the aircraft systems **198** (FIG. 9a) provide data to the passenger concerning the aircraft flight. Such data may include aircraft direction, aircraft speed and aircraft altitude for display on a moving map image. The Examiner has taken the position that this information may be provided as an additional video input which may be offered to the passengers.

The Appellants submit that Galipeau et al. fails to clearly state that the passengers may actually select the flight information provided via the additional video input. For example, Galipeau et al. discloses in column 11, lines 35-38 that an in-flight work station **200** is available for the flight crew to select which programming is available to passengers. Galipeau et al. fails to state that the passengers have control for selecting the input versus the pilot or flight crew selecting when the flight information is to be displayed - such as when a flight update is made by the pilot or flight crew.

Consequently, the Examiner further cited the Wakai et al. patent as disclosing in column 2, lines 7-19 a video on demand system that includes a moving map display feature which "allows the passenger to view the current flight and the airplane's current position along that route."

The Examiner has taken the position that it would have been obvious at the time of the invention to have combined the satellite TV receiver as disclosed in Sklar et al. with the moving map image generator as disclosed in Galipeau et al., as well as with the moving map image generator disclosed in Wakai et al. which is controlled on demand by each passenger. The Examiner states that this would be beneficial to the IFE system in Sklar et al. since it would enhance the satellite TV receiver IFE system to further include a moving map image generator flight information

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channel that may be selected by a passenger along with a programming channel provided by the satellite TV receiver.

The Appellants respectfully submit that the Examiner is using impermissible hindsight reconstruction to modify Sklar et al. in view of Galipeau et al. and in further view of Wakai et al. to produce the claimed invention. Appellants assert that there is no proper motivation to selectively modify the prior art references in the manner set forth by the Examiner absent the Appellants' disclosure.

As the Examiner is aware, to establish a prima facie case of obviousness, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the references. The IFE system in Sklar et al. is directed to controlling the reception by an aircraft of broadcast entertainment transmissions from a satellite. Sklar et al. fails to mention providing any other type of programming channels to the passengers, i.e., such as a flight information channel.

The IFE system in Galipeau et al. discloses a flight information channel available to the passengers, but fails to clearly state that the passengers select the flight information channel. In addition, the IFE system in Galipeau et al. fails to disclose that the IFE system comprises a satellite TV receiver.

The IFE system in Wakai et al. discloses a flight information channel that may be selected by each passenger for viewing the flight route and the aircraft's current position along the route, but Wakai et al. fails to disclose a processor for determining aircraft speed and aircraft altitude in addition to the aircraft's position displayed along the flight route. As with the Galipeau et al. patent, Wakai et al. fails to disclose that the IFE system comprises a satellite TV receiver.

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More specifically, one of ordinary skill in the art would not look to modify the Sklar et al. patent to include a moving map image generator for generating a flight information channel including a moving representation of the aircraft position on the map image, or that the moving map generator comprises a processor for determining an aircraft position during flight, and at least one of an aircraft direction, aircraft speed, and aircraft altitude for display with the moving map image, without having had the benefit of studying the Appellants' specification.

Accordingly, Appellants submit that independent Claim 32 is patentable over the Sklar et al. patent in view of the Galipeau et al. patent and in further view of the Wakai et al. patent. Independent method Claim 41 is similar to independent device Claim 32. Therefore, it is submitted that independent Claim 41 is also patentable over the Sklar et al. patent in view of the Galipeau et al. patent and in further view of the Wakai et al. patent. In view of the patentability of the independent claims, it is submitted that their dependent claims, which recite yet further distinguishing features, are also patentable, and require no further discussion herein.

## II. Conclusion

In view of the foregoing arguments, it is submitted that all of the claims are patentable over the prior art. Accordingly, the Board of Patent Appeals and Interferences is respectfully requested to reverse the earlier unfavorable decision by the Examiner.

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Respectfully submitted,

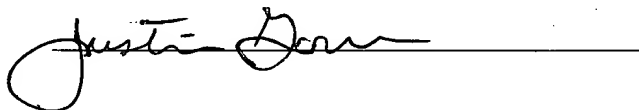


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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 10<sup>th</sup> day of January, 2005.





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**APPENDIX A - CLAIMS ON APPEAL**  
**FOR U.S. PATENT APPLICATION SERIAL NO. 09/545,267**

32. An aircraft in-flight entertainment system comprising:

a satellite television (TV) receiver for generating a plurality of programming channels;

a moving map image generator for generating a flight information channel including a moving representation of the aircraft position on a map image, said moving map image generator comprising a processor for determining an aircraft position during flight, aircraft direction, aircraft speed, and aircraft altitude for display with the moving map image;

a plurality of passenger seatback displays connected to said satellite TV receiver and said moving map image generator; and

a respective passenger control unit associated with each passenger seatback display for permitting passenger selection of one of the programming channels and flight information channel for display thereon.

33. An aircraft in-flight entertainment system according to Claim 32 wherein said satellite TV receiver comprises a direct broadcast satellite (DBS) receiver.

35. An aircraft in-flight entertainment system according to Claim 32 further comprising a global positioning system (GPS) receiver connected to said processor for determining the aircraft position.

36. An aircraft in-flight entertainment system according to Claim 35 further comprising a steerable antenna connected to said satellite TV receiver; and wherein steering

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of said steerable antenna is based upon signals from said GPS receiver.

39. An aircraft in-flight entertainment system according to Claim 32 further comprising:

a plurality of signal distribution devices; and  
a cable network connecting said satellite TV receiver and said moving map image generator to said signal distribution devices, and connecting said signal distribution devices to said plurality of passenger seatback displays.

40. An aircraft in-flight entertainment system according to Claim 32 wherein the aircraft is a narrow-body aircraft having a single longitudinal passenger aisle.

41. A method for operating an aircraft in-flight entertainment system comprising a satellite television (TV) receiver for generating a plurality of video programming channels, a plurality of passenger seatback displays connected to the satellite TV receiver, and a respective passenger control unit associated with each passenger seatback display for permitting passenger selection of one of the programming channels for display thereon, the method comprising:

generating a flight information channel including a moving representation of the aircraft position on a map image; and

permitting passenger selection of the flight information channel on one of the passenger seatback displays also using the respective passenger control unit;

wherein generating comprises determining an aircraft position during flight, aircraft direction, aircraft speed and aircraft altitude for display with the moving map image.

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42. A method according to Claim 41 wherein the satellite TV receiver comprises a direct broadcast satellite (DBS) receiver.

45. A method according to Claim 41 wherein the aircraft in-flight entertainment system further comprises a global positioning system (GPS) receiver; and wherein generating the flight information channel comprises determining aircraft position based on signals from the GPS receiver.

47. A method according to Claim 41 wherein the aircraft is a narrow-body aircraft having a single passenger aisle.